

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended): A laser, comprising:

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a lasing chamber,
trivalent titanium ions dissolved in a liquid host within said lasing chamber,
a first semiconductor pumping device operatively connected to said lasing chamber for optically exciting said trivalent titanium ions dissolved in said liquid host within said lasing chamber, said first semiconductor pumping device comprising at least one semiconductor diode for optically exciting said trivalent titanium ions dissolved in said liquid host within said lasing chamber,
a second semiconductor pumping device operatively connected to said lasing chamber for optically exciting said trivalent titanium ions dissolved in said liquid host within said lasing chamber, said second semiconductor pumping device comprising at least one semiconductor diode for optically exciting said trivalent titanium ions dissolved in said liquid host within said lasing chamber,
a closed loop circulation system for circulating said trivalent titanium ions dissolved in a liquid host, said closed loop circulation system comprising
a first closed loop circulation system portion for circulating said trivalent titanium ions dissolved in a liquid host into and out of said first lasing chamber and said second lasing chamber, in a first direction and
a second closed loop circulation system portion for circulating said trivalent titanium ions dissolved in a liquid host into and out of said first lasing chamber and said second lasing chamber in a second direction that is opposite to said first direction.

Claim 2. (Cancelled)

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Claim 3. (Currently Amended): The laser of claim 1 wherein said first closed loop circulation system ~~and said a second closed loop circulation system~~ for circulating said trivalent titanium ions dissolved in a liquid host ~~into and out of said first lasing chamber and said second lasing chamber~~ includes a pump and a heat exchanger.

Claim 4. (Currently Amended): The laser of claim 1, wherein thermally induced optical phase errors are produced by said a closed loop circulation system for circulating said trivalent titanium ions dissolved in a liquid host and including wherein said first portion for circulating said trivalent titanium ions dissolved in a liquid host into and out of said lasing chamber in a first direction and said second portion for circulating said trivalent titanium ions dissolved in a liquid host into and out said lasing chamber in a second direction that is opposite to said first direction provides a system for correcting said thermally induced optical phase errors.

Claim 5. (Currently Amended): The laser system of claim 4, wherein ~~said first closed loop circulation system~~ portion for circulating said trivalent titanium ions dissolved in a liquid host includes a first flow channel and said ~~second closed loop circulation system~~ portion for circulating said trivalent titanium ions dissolved in a liquid host includes a second flow channel, said first flow channel and said second flow channel being of substantially equal length, ~~wherein said system for correcting said thermally induced optical phase errors includes a said first closed loop circulation system for circulating said trivalent titanium ions dissolved in a liquid host and said second closed loop circulation system for circulating said trivalent titanium ions dissolved in a liquid host through said first flow channel and said second flow channel, whereby said liquid host is divided into two equal lengths and placed in series in said lasing~~

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chamber, and wherein said first flow channel and said second flow channel are arranged in opposite directions.

Claim 6. (Cancelled)

Claim 7. (Cancelled)

Claim 8. (Cancelled)

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Claim 9. (Currently Amended): A laser system, comprising:

an optical cavity,

a lasing liquid containing trivalent titanium ions dissolved in a liquid host within said optical cavity,

a first semiconductor pumping device operatively connected to said optical cavity for optically exciting said trivalent titanium ions dissolved in a liquid host within said optical cavity, said first semiconductor pumping device comprising at least one semiconductor diode for optically exciting said trivalent titanium ions in the 800 to 900 nm region,

a second semiconductor pumping device operatively connected to said optical cavity for optically exciting said trivalent titanium ions dissolved in a liquid host within said optical cavity, said second semiconductor pumping device comprising at least one semiconductor diode for optically exciting said trivalent titanium ions in the 800 to 900 nm region,

a closed loop circulation system for circulating said trivalent titanium ions dissolved in a liquid host, said closed loop circulation system comprising

a first closed loop circulation system that provides a closed loop portion for circulating said lasing liquid containing trivalent titanium ions dissolved in a liquid host into and out of said optical cavity in a first direction, and

a second closed loop circulation system that provides a closed loop portion for circulating said lasing liquid containing trivalent titanium ions dissolved in a liquid host into and out of said optical cavity in a second direction

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that is opposite to said first direction, said ~~first~~ closed loop circulation system
and said ~~second closed loop circulation system~~ including a pump and a heat
exchanger.